

## CLAIMS:

1. A lighting device comprising at least one light source arranged in a housing for emitting a lighting beam through a light-transmitting plate of the housing, wherein said plate is provided with means which reflect incident light on the plate, in such a manner that light which locally has a higher intensity is reflected more strongly at that location than light which locally has a lower intensity, characterized in that said means comprise at least one light-transmitting plate, which is locally provided with a patterned reflective material, the provided reflective material reflecting more than 80% of the incident light thereon.
2. A lighting device according to claim 1, wherein said material is arranged in a one-dimensional spatial pattern on or in the light-transmitting plate.
3. A lighting device according to claim 1, wherein said material is arranged in a two-dimensional spatial pattern on or in the light-transmitting plate.
4. A lighting device according to claim 1, 2 or 3, wherein said means comprise at least one light-transmitting plate having grooves formed therein, which grooves are filled with a diffuse reflective powder.
5. A lighting device according to claim 4, wherein grooves present at locations where the incident light on the plate has a higher intensity are wider than grooves present at locations where the incident light on the plate has a lower intensity.
6. A lighting device according to claims 4 and 5, wherein the spacing between neighbouring grooves is smaller at locations where the incident light on the plate has a higher intensity than at locations where the incident light on the plate has a lower intensity.
7. A lighting device according to claim 4, 5 or 6, wherein the grooves are formed in the light-transmitting plate of the housing, and wherein the grooves are covered by a cover plate arranged on said plate.

8. A lighting device according to any one of the preceding claims 4 - 7, wherein the grooves are formed in a light-transmitting second plate arranged on the light-transmitting plate of the housing, and wherein the grooves in the second plate are covered by a cover plate  
5 arranged on said second plate.

9. A lighting device according to any one of the preceding claims 4 - 8, wherein the grooves are formed in a light-transmitting second plate arranged on the light-transmitting plate of the housing, and wherein the grooves are covered by the plate of the housing.

10. A lighting device according to any one of the preceding claims 4 - 9, wherein said grooves have a minimum depth of at least 1.5 mm and a minimum width of at least 1 mm.

11. A lighting device according to any one of the claims 4 - 10, wherein said powder comprises calcium halophosphate, calcium pyrophosphate,  $\text{BaSO}_4$ ,  $\text{MgO}$ ,  $\text{YBO}_3$ ,  $\text{TiO}_2$  or  $\text{Al}_2\text{O}_3$  particles.

12. A lighting device according to claim 11, wherein said particles have an  
20 average diameter ranging from 0.1 to 100  $\mu\text{m}$ , in particular from 5 to 20  $\mu\text{m}$ .

13. A lighting device according to claim 11 or 12, wherein said particles are mixed with fine-grained  $\text{Al}_2\text{O}_3$  particles having an average diameter which ranges from 10 to 50 nm.

14. A lighting device according to claim 13, wherein the amount of fine-grained  $\text{Al}_2\text{O}_3$  particles having an average diameter ranging from 10 to 50 nm ranges from 0.1 to 5 wt. %, in particular from 0.5 to 3 wt. %.

15. A lighting device according to any one of the preceding claims 4 - 14, wherein said powder is a "free-flowing" type powder.

16. A lighting device according to any one of the preceding claims 4 - 15, wherein the powder is substantially incapable of absorbing light, in particular light having a wavelength in the visible wavelength range.

- 5 17. A method for the lateral homogenisation of the intensity of the light emitted from a lighting housing, using a lighting device comprising at least one light source arranged in a housing for emitting a lighting beam through a light-transmitting plate of the housing, wherein said plate is locally provided with means which reflect incident light on the plate, in such a manner that light which locally has a higher intensity is reflected more strongly at that  
10 location than light which locally has a lower intensity, characterized in that said means comprise at least one light-transmitting plate, which is locally provided with a reflective material which reflects more than 80% of the incident light thereon, and wherein the patterned material has been rendered visually indistinguishable by disposing an additional translucent plate, for example a matted plate, on the side of the light-transmitting plate facing  
15 away from the light source, spaced from said light-transmitting plate by a short distance and oriented in parallel thereto.